



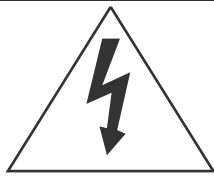
DIGITAL RECORDER

USER'S MANUAL

MODEL

DX-TL5000U

THIS INSTRUCTION MANUAL IS IMPORTANT TO YOU. PLEASE READ IT BEFORE USING YOUR DIGITAL RECORDER.

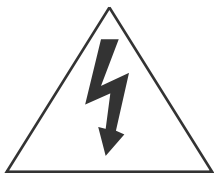


WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN



WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



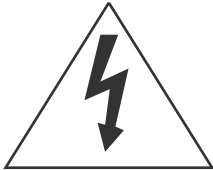
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:


TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

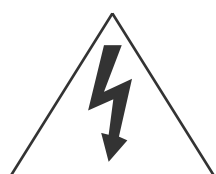
TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.



AVERTISSEMENT
DANGER D'ÉLECTROCUTION
NE PAS OUVRIR



AVERTISSEMENT: POUR ÉLIMINER TOUT RISQUE D'ÉLECTROCUTION, NE PAS OUVRIR LE COUVERCLE (OU LA PARTIE ARRIÈRE). AUCUNE PIÈCE RÉPARABLE PAR L'UTILISATEUR NE SE TROUVE À L'INTÉRIEUR. POUR TOUTE INTERVENTION D'ENTRETIEN OU DE RÉPARATION SE CONFIER AUX TECHNICIENS QUALIFIÉS.



La flèche symbolisant l'éclair dans un triangle équilatéral a pour objet de tirer l'attention de l'utilisateur sur le fait, qu'il y a des "tensions dangereuses" non-isolées à l'intérieur de l'enceinte du produit qui peuvent être suffisamment importantes pour conduire au risque d'électrocution.



Le point d'exclamation au sein d'un triangle équilatéral a pour objet de tirer l'attention de l'utilisateur sur le fait qu'il y a des instructions de mise en service et d'entretien (de réparation) dans les fiches descriptives de l'appareil qui doivent obligatoirement être respectées.

AVERTISSEMENT:

AFIN D'ÉVITER TOUT RISQUE D'INCENDIE OU D'ÉLECTROCUTION, NE PAS EXPOSER CET APPAREIL À LA PLUIE NI À L'HUMIDITÉ.

ATTENTION:

POUR PRÉVENIR LES CHOCS ÉLECTRIQUES NE PAS UTILISER CETTE FICHE POLARISÉE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉES À FOND SANS EN LAISSER AUCUNE PARTIE À DÉCOUVERT.

Important safeguards

PLEASE READ ALL THESE INSTRUCTIONS REGARDING YOUR RECORDER AND RETAIN FOR FUTURE REFERENCE. FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE RECORDER.

1. Read Instructions

All the safety and operating instructions should be read before the appliance is operated.

2. Retain Instructions

The safety and operating instructions should be retained for future reference.

3. Heed Warnings

All warnings on the appliance and in the operating instructions should be adhered to.

4. Follow Instructions

All operating and use instructions should be followed.

5. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

6. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

7. Water and Moisture

Do not use this product near water – for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

8. Accessories

Do not place the product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

9. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

10. Power Sources

This product should be operated only from the type of power source indicated on the marking label. For products intended to operate from battery power, other sources, refer to the operating instructions.

11. Grounding or Polarization

This product is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

12. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cord at plugs, convenience receptacles, and the point where they exit from the appliance.

13. Lightning

For added protection for this product receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.

14. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

15. Object and Liquid Entry

Never spill liquid of any kind on the product.



16. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

17. Damage requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- (a) When the power-supply cord or plug is damaged.
- (b) If liquid has been spilled, or objects have fallen into the product.
- (c) If the product has been exposed to rain or water.
- (d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- (e) If the product has been dropped or the cabinet has been damaged.
- (f) When the product exhibits a distinct change in performance, this indicates a need for service.

18. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

19. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating conditions.

20. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

Caution and care

HEAVY OBJECTS SHOULD NEVER BE PLACED ON THE UNIT (E.G., MONITOR)

NEVER TOUCH OR INSERT ANY OBJECT INSIDE THE UNIT

Touching the inside of the cabinet or inserting foreign objects of any kind through the disc loading slot or ventilation holes not only creates a safety hazard but can also cause extensive damage.

PROTECT THE POWER CORD

Damage to the power cord may cause fire or shock hazard. If the power cord is damaged, turn OFF the MAIN switch and carefully unplug the cord by holding the main plug.

If this unit is moved with the power on status, the built-in HDD may be damaged. Confirm that more than one minute have passed since the power cord and the connecting cords were disconnected, then move this unit. Make sure to take the disc out and close the disc loading slot.

UNPLUG THE POWER CORD DURING A LONG ABSENCE

Turn off the power and unplug the power cord during a long absence.

MAINTAIN GOOD VENTILATION

Do not obstruct the many ventilation holes on the unit. For maximum ventilation, leave some space around the unit and place the unit on a hard level surface only, and ensure it is not covered during use. Heavy objects should never be placed on the unit.

WHEN NOT IN USE

When not in use, always eject the disc and turn OFF the MAIN switch.

CABINET CARE

Never use petroleum-based cleaners. Clean with a soft cloth moistened with soap and water and wipe dry.

PVC cables or leads should not be left in contact with the cabinet surface for long periods.

INSTALLATION LOCATION

For excellent performance and lasting reliability install in a location that is:-

1. Well ventilated, out of direct sunlight and away from direct heat.
2. A solid vibration-free surface.
3. Free from high humidity, excessive dust and away from magnetic fields.
4. Please ensure that the ventilation fan located on the unit's back panel is not blocked.

UNSUITABLE LOCATIONS

Placing the unit in the following places might shorten the product life:

- Extremely cold places, such as refrigerated warehouses and ice houses
- Places where excessive hydrogen sulfide is likely to be generated, such as hot-springs areas
- Places or locations with salt air environment.

NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

DO NOT PLACE HEAVY OBJECT ON THIS UNIT.

DO NOT STEP ONTO THIS UNIT.

DO NOT PLACE ANY OBJECTS IN FRONT OF THE DISC LOADING SLOT.

The unit may drop or fall by losing its balance. It may cause injury or failure of the unit.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. THIS APPARATUS MUST BE GROUNDED.

WARNING:

The supplied power cord is used for 120 V only. Never connect to any outlet or power supply having a different voltage or frequency.

Notice about construction of the surveillance system using this unit

- This unit can be controlled by the external devices via RS-232C terminal or LAN terminal. This unit can also be used to control external devices via external terminal, RS-422/485, or RS-232C terminal. Owing to these functions, this unit flexibly applies to the high grade security system, but the whole surveillance system may be affected by the malfunction of this unit or the external devices depending on the setting contents of this unit, or the connection or combination between the external devices.
- When configuring a surveillance system using this unit, it is recommended to confirm first that this unit operates normally with the other devices connected.
- It is recommended to copy or back up the important recorded contents.
- Damages rising out of any operational error of the surveillance system or loss of the recorded data or any other damages because of any user malfunction of this unit are not covered.

There may be cases when the unit's built-in MOTION DETECTION function does not operate properly due to external condition or video input signal or other factors.

The user will not be indemnified for problems (e.g., recording failure or playback failure) that occur with either the unit or a connected device during operation. It is recommended that backups of important recordings are made regularly as a precaution against possible breakdowns and accidents.

Recordable time and product warranty

Continuous recordable time and the estimated time displayed on the menu screen is the continuous recordable time when operating this unit and is not the product warranty period. Furthermore, it is not the period that guarantees life time at the unit.

- This unit uses a built-in hard disk, which is a precision device. Please handle this unit with sufficient care.
- Do not subject this unit to vibrations or shocks. This may cause trouble specially when the power of the unit is turned on or when the hard disk is being accessed, and sufficient care is required.
- Do not disconnect the power plug while the power of the unit is turned on or while recording or playing.
- For early detection of faults, we recommend that you request inspection once a year.

The hard disk and cooling fan are not permanent items and will need replacing with time. When operated in an ambient temperature of 25 °C, it is recommended that both of the hard disk and fan are replaced every 30,000 hours. (This figure is only a guide, and should not be taken as a guaranteed lifespan of the products. Use the <Elapsed Operating Time> (System Menu → Service Info) as a guide to perform checkups.)

DISCLAIMER

In any event, Mitsubishi assumes no responsibility or reliability for the following:

1. Disassembly, repair, or alteration of this unit by user or installer.
2. Failure or breakdown in or damage to this unit resulting from misuse or careless handling by user or installer.
3. Inconvenience or damages arising out of inability to display or record images due to any reason or cause other than breakdown or failure in this unit.
4. Failure in this unit due to combination with other equipment manufactured by a third party or inconvenience or damages resulting from such failure.
5. Inconvenience, damages, or claims arising out of breakdown in this unit or loss of recorded video data due to replacement of the built-in HDD by user or installer.
6. Inconvenience or damages arising out of breakdown in this unit or inability to display or record images due to natural disaster including earthquake and storm.
7. Inconvenience, damages, or claims arising out of breakdown in this unit or loss of recorded video data due to impact or vibration to the built-in HDD or an environmental factor such as temperature at the installation site.
8. Demand for damages or other claim of infringement of privacy if the images monitored or recorded by user become public or are used for any purpose other than surveillance for whatever reason.

INSTALLATION LOCATION AND HANDLING

- Place this unit horizontally and in a stable place. If this unit is not placed correctly and used in an unstable place, the unit may be damaged such as removal of the DVD/CD disc.
- Do not place this unit close to other electronic or magnetic equipment. This will avoid video and audio distortion.
- When a monitor and this unit are placed vertically, the pictures may be distorted or DVD/CD disc may not be ejected.
- Do not let stick your hands into the disc loading slot. You may get your hand caught in the slot and may get injured. If you get your hand caught, do not get out of the slot by force. Contact your dealer after turning off the power and disconnecting the plug.

DVD/CD DISC

- Do not use the disc cracked, deformed or repaired with adhesive. The disc may fly into pieces and cause injury.
- Do not touch the playback surface when holding the disc.
- When dew condensation occurs on the disc, wipe the surface off before use.
- Dirt such as fingerprints or dust causes the deterioration of the picture quality and audio quality. Gently wipe the DVD/CD disc from the center to the outside with a soft cloth.
- When the disc is very dirty, soak a soft cloth with water and screw water of it, wipe off the dirt lightly, then wipe with a dry cloth.
- Do not use solvent such as benzine and thinner, a record cleaner, and static-stopper. They may damage the disc.
- Do not use the disc described below. They may damage the disk itself or this unit.
 - Discs on which a piece of paper or sticker is put, or a disk damaged.
 - Discs which the label is peeled or a disk with oozing.
 - Discs cracked, deformed, or repaired with adhesive.
- Store the disc in the specified casing, avoiding the following places.
 - Places where it will be subjected to direct sunlight.
 - Places with excessive dust.
 - Places where it will be subjected to high temperatures or high humidity.
- DVD movie (cinema) or personal recorded picture cannot be played back on this unit. Only the pictures recorded on this unit can be played back.

MAINTENANCE OF THE LENS FOR RECORDING/PLAYBACK (LASER PICKUP)

- When any dust adheres on the lens for recording/playback, the image may be distorted or the audio may skip. Also normal recording or playback may not work. Ask your dealer how to correct this problem.
Be careful, do not use the commercial lens cleaning disk, they may damage the lens.

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How to read this manual

• Viewing displays

☞ (Refer to this information when operating):
Reference information concerning operation

⚠ (Caution required):
Cautionary items concerning operation

• Finding desired information

There is a "Contents" at the beginning of this manual.

• Troubleshooting

Read Troubleshooting (pages 32, 33) for possible remedies to the problem.

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Note

Thank you for purchasing Mitsubishi digital recorder DX-TL5000U (hereinafter referred to as “Product”). Before using this Product, please be sure to read the following Software License Agreement with regard to the software contained in this Product (hereinafter referred to as “Licensed Software”). **By using this Product, you are agreeing to be bound by the terms and conditions of the following Software License Agreement.**

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In addition, this Product contains “Apache” and “OpenSSL (including “Original SSLeay” library).” These software programs are also excluded from Licensed Software and not covered by the following Software License Agreement. For the terms and conditions for use of these software programs, please see “Notice about Apache software”^{*} and “Notice about OpenSSL software”^{*}.

Each of “Berkeley Database,” “agetty,” “expat,” and “zlib” contained in this Product is other open source software. These software programs are excluded from Licensed Software and not covered by the following Software License Agreement. For the terms and conditions for use of these software programs, please see “Notice about other open source software”^{*}.

- * The documents of “Notice about software to which GNU GPL/LGPL is applied,” “Notice about Apache software,” “Notice about OpenSSL software,” and “Notice about other open source software” are contained (in the format of electronic files as notice_GPL_LGPL_ja.pdf, notice_Apache_ja.pdf, notice_OpenSSL_ja.pdf, and notice_other_ja.pdf) in the “OpenSoft_License” folder in the accessory CD supplied with this Product.

Software License Agreement

This Software License Agreement ("Agreement") is an agreement between you ("User") and Mitsubishi Electric Corporation ("Licensor") with regard to the license to use Licensed Software.

Article 1 (Grant of license)

Licensor hereby grants to User a nonexclusive, nontransferable license to use Licensed Software.

Article 2 (License)

1. The license to use Licensed Software granted hereunder shall mean the User's right to use Licensed Software solely on this Product. User is hereby allowed to refer to the descriptions and instructions related to Licensed Software contained in the user's guide of this Product to the extent necessary for use of such Licensed Software.
2. User shall not reproduce, copy, or modify, in whole or in part, or make addition or alteration to Licensed Software and pertinent documents.
3. User shall use Licensed Software in accordance with the operating instructions described in the user's guide.

Article 3 (License conditions)

1. User shall not transfer to any third party the license stipulated in the preceding article.
2. User shall not disassemble, decompile, or otherwise analyze the source code of Licensed Software.

Article 4 (Ownership of Licensed Software)

All and any rights including copyrights related to Licensed Software and pertinent documents shall be owned by Licensor or the original right holder who granted to Licensor the right to sublicense Licensed Software (hereinafter referred to as "Original Right Holder"). User shall not own any rights other than the license granted hereunder with regard to Licensed Software and pertinent documents.

Article 5 (Disclaimer)

Licensor and Original Right Holder shall make no warranties whatsoever with regard to Licensed Software and have no liability for any damages suffered by User or any third party arising out of User's execution of the license granted hereunder, except in cases where any applicable laws are extended.

Article 6 (Responsibility toward third party)

Any issues related to intellectual property rights, including but not limited to rights of privacy, copyright, and patent, involving any third party arising out of User's use of Licensed Software shall be settled by User on its own responsibility, and Licensor shall have no responsibilities for such issues.

Article 7 (Confidentiality)

User shall keep secret the details of Licensed Software and pertinent documents provided hereunder and the contents of this Agreement that are unknown publicly and shall not disclose or leak such details and contents to any third party without consent of Licensor.

Article 8 (Termination)

In case of either of the following events, Licensor may terminate this Agreement immediately and may claim against User for resulting damages it suffers.

- (1) User's violation of any provision of this Agreement.
- (2) Occurrence of filing against User for seizure, provisional seizure, provisional injunction, or other forcible execution.

Article 9 (Disposal of Licensed Software)

If this Agreement is terminated pursuant to the preceding article, User shall dispose of Licensed Software, pertinent documents, and any copies thereof in its possession within two weeks after termination hereof and shall provide Licensor with a written certification of such disposal.

Article 10 (Update of Licensed Software)

If User updates Licensed Software using an update CD supplied or sold by Licensor or any other means, this Agreement shall remain applicable to the updated version of such Licensed Software, unless Licensor provides additional separate terms and conditions for using the updated version of such Licensed Software.

Article 11 (Miscellaneous)

1. If any provision of this Agreement is determined to be invalid by law, the remaining provisions hereof shall remain valid and enforceable.
2. If any doubt arises in relation to matters not defined herein or interpretation hereof, Licensor and User shall discuss such doubt and attain a solution in a faithful manner.

How to set the menus

■ Setting the menus

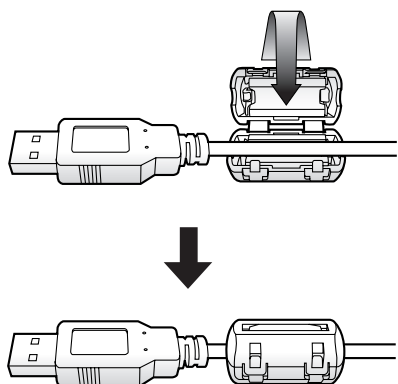
The operations of this unit can be set via a menu displayed on OUTPUT A monitor. You can select and set the operational conditions by using the buttons on the front panel or using a USB mouse connected to the unit. When using the front panel buttons, the numbers 1-16 (camera number buttons) and letters A to E (SPLIT screen buttons) represent the GUI button of the menu screen.



- The menu can only be displayed through OUTPUT A monitor. The menu cannot be displayed through OUTPUT B monitor.

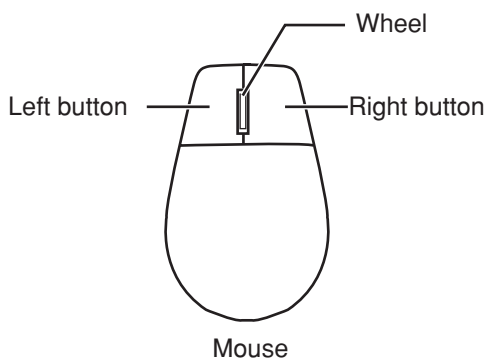
◆ Setting the menu using a mouse

• Setting a mouse



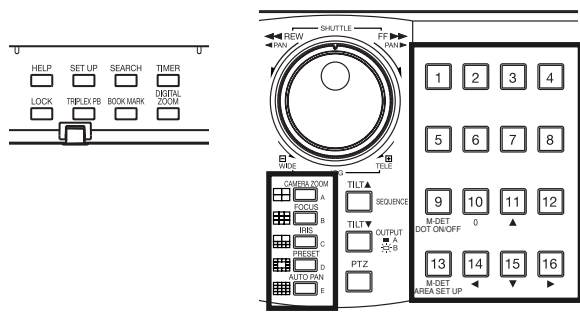
- step1.** Attach the supplied ferrite core to the cable of the mouse as illustrated to the left.

• Setting a menu with a mouse



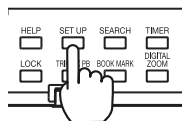
- step1.** Use the left and right mouse buttons to set the menu.
- Click the left button to open the menu or select a needed item, etc.
 - Click the right button to select the active area for motion detection function.
 - The wheel on a mouse does not work with this unit.

◆ Setting the menu using the front panel buttons



- step1.** Use the SET UP button, camera number buttons, and the SPLIT screen buttons (A to E) to set the menu.
- Press the SET UP button to display the menu screen.
 - Press the camera number buttons (1 to 16) and the SPLIT screen buttons (A to E) to open each menu or select the needed item.

◆ Displaying a menu screen

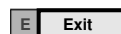


step 1. Press the SET UP button or click the left button on the mouse to display a menu.

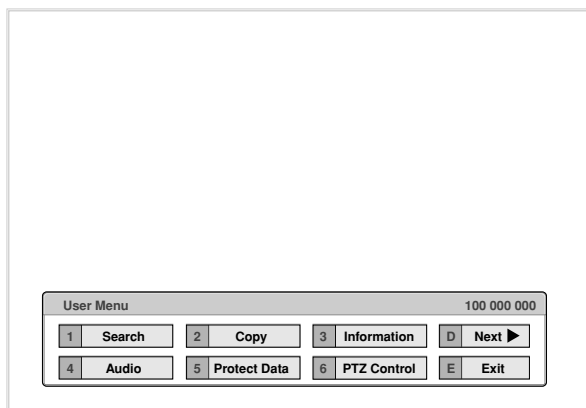
- The <User Menu> appears.
- To open other menu, press the D button or left-click on “Next ▶.”



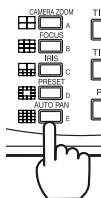
- When you use a mouse, click the following area to operate.



Click this area



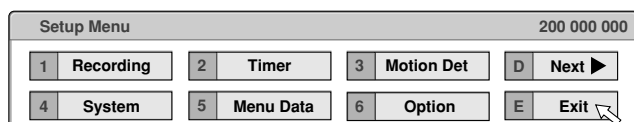
◆ Closing a menu screen



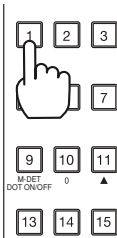
step 1. Press the E button or left-click on the “Exit” to close the menu.



- You cannot close the menu by pressing the SET UP button on the unit.

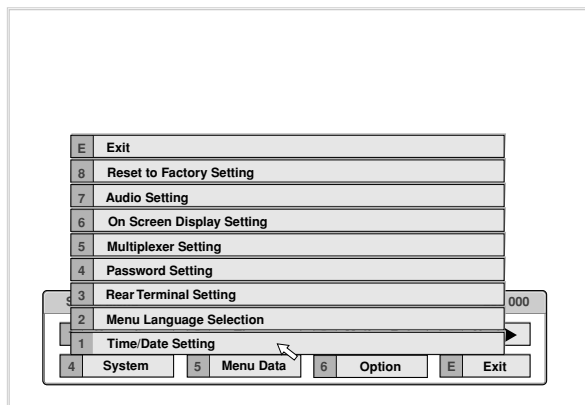


◆ Selecting an item



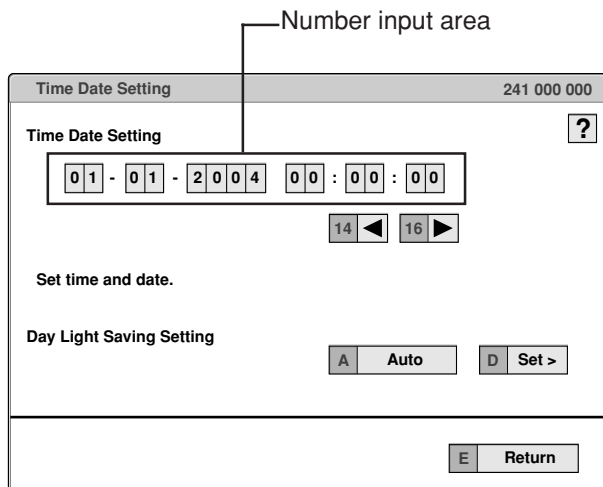
step 1. Press the front panel button of the needed item or left click on the needed item.

- The item menu opens.
- Select an item and press the number or click on the menu to open the item.



How to set the menus (continued)

◆ Inputting numbers



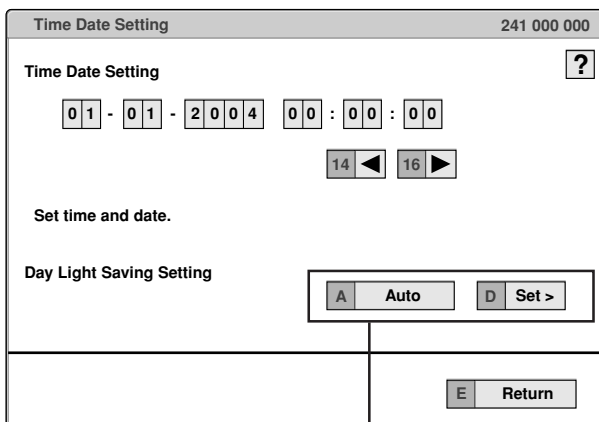
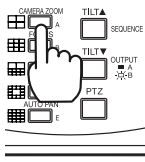
Using the front buttons of the unit:

- step1.** The number displayed in red can be changed. Pressing the camera number buttons (0 to 9) will input and use that number.
- step2.** To move to the next input area, press the 16 button. To go back to the previous area, press the 14 button.

Using a mouse:

- step1.** Left-click on the number in red until the needed number appears.
- To change another area, left-click on the needed area or left-click ◀ or ▶.

◆ Setting parameters

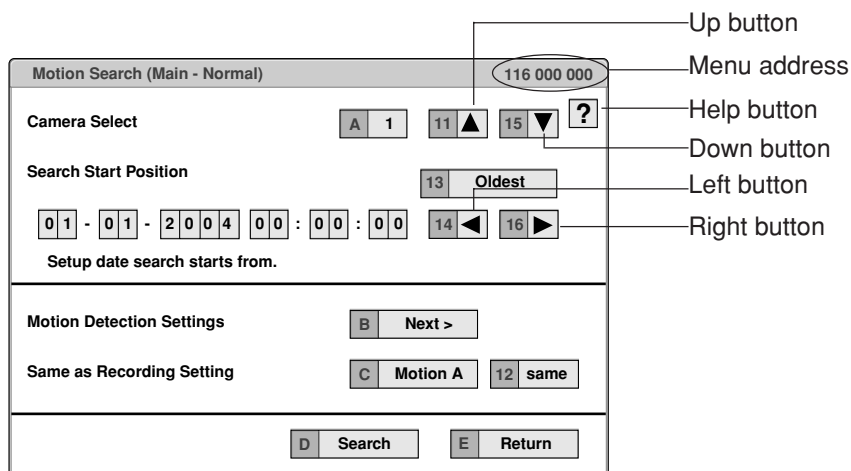


- step1.** Press the A button or left-click on the parameter box until the item to be set appears.
- step2.** For some items, more detailed setting is required. In this case, an item such as "D(Set >)" is displayed. If necessary, press the D button or left-click on the "Set >" to set more details.



- When you close the menu, press the E button or left click on "Return" or "Exit."
- You cannot close the menu by pressing the SET UP button on the unit.

■ Symbols in the menus



Some symbols appear in the menu screens. The meanings are as follows.

- [?]** (Help) When you press the HELP button or click this symbol, the detailed information on the menu appears.
- ◀** (Left) When you press the 14 button or click this symbol, the item to be set shifts to left.
- ▶** (Right) When you press the 16 button or click this symbol, the item to be set shifts to right.
- ▲** (Up) When you press the 11 button or click this symbol, the value of selected item increases.
- ▼** (Down) When you press the 15 button or click this symbol, the value of selected item decreases.

Menu address A unique number for each menu page. You can go directly to each menu page by inputting the menu address number using the front buttons of the unit.

For example, when opening the <Motion Search> menu, press the SET UP button and then press the camera number button in the order of 1, 6.

Setting the time and date

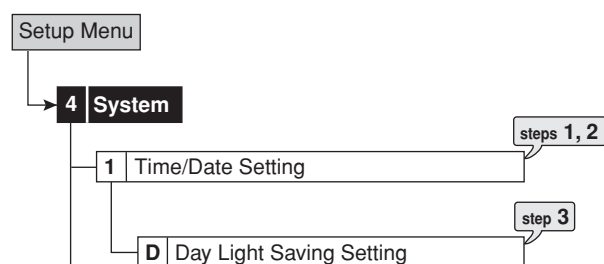
■ Time/Date Setting (Setup Menu → System → Time/Date Setting)

This item is used to set the present date, time, and auto daylight saving. Auto daylight saving function is used to automatically gain the clock of the unit an hour for the specified time period.

Start/end time of the auto daylight savings can be checked and if needed, changed.



- Before you start recording, accurately set the present date and time.
- The recording and playback are not performed correctly when the clock of this unit does not run. Check that the clock of this unit is running before operation.



step1. Set the present month, date, year, hour, minute, and second.

step2. Select the desired setting for daylight saving.
Auto: Automatically adjust forward or back an hour for the time period set in the <Day Light Saving Setting>.
Off: Auto daylight saving function is not used.

step3. Date and time of Auto Day Light Saving Setting can be adjusted as needed.

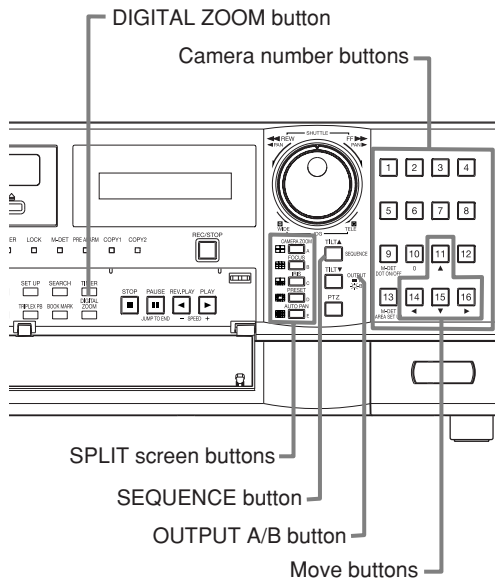


- The time is indicated using the 24-hour system.
- This unit uses 4 digits to display the year. The available display range is 37 years between 1/1/2001 to 31/12/2037. The unit is also equipped with a function to automatically calculate leap years. The year returns to 2001 after 31/12/2037.

Using the basic multiplexer functions

■ Basic multiplexer functions

This function is used to activate multiplexer functions using the buttons on the front panel.



- The sequential display is cancelled when a different type of split screen or single screen is selected.
- Pressing the OUTPUT A/B button on the front panel switches the multiplexer video output. When OUTPUT A is selected, the button light indicator is off. When OUTPUT B is selected, the button light indicator is on, and camera number buttons, SPLIT screen buttons, and SEQUENCE button are operated for the monitor screen connected to the OUTPUT B connector. Pressing the OUTPUT A/B button again switches the multiplexer output to OUTPUT A.

4. DIGITAL ZOOM button

Pressing this button in single screen mode displays the screen at 100%. At this time, the magnification center point (X) appears. Pressing the button again switches the magnification to 200%, and then 400%. By pressing the MOVE buttons, the center point moves vertically or horizontally.

When the DIGITAL ZOOM button is pressed, camera number buttons 11, 14, 15, and 16 move the “X” in the screen.

◆ Multiplexer buttons

1. Camera number buttons (1 to 16)

Displays the picture supplied from the cameras connected to CAMERA IN terminals 1 to 16 on the rear panel in the single screen display.



- Pictures can be displayed even if the camera is not set to record.

2. SPLIT screen buttons

Displays the split screen in the following order.

SPLIT4 (田) button : SPLIT 4a→SPLIT 4b→
SPLIT 4c→SPLIT 4d→SPLIT 4a
→...

SPLIT9 (田田) button : SPLIT 9a→SPLIT 9b→
SPLIT 9a→...

SPLIT10 (田田田) button : SPLIT 10a→SPLIT 10b→
SPLIT 10a→...

SPLIT13 (田田田田) button : SPLIT 13a→SPLIT 13b→
SPLIT 13a→...

SPLIT16 (田田田田田) button : SPLIT 16 screen

3. SEQUENCE button

Displays the sequential screen in the split screen or the single screen display. Make the detailed settings of this display in the <Multiplexer Setting> (Setup Menu → System→Multiplexer Setting). Sequential display does not appear during playback.

Using the cascade function

■ Cascade

This unit supports cascade connection where up to 16 DX-TL5000U can be connected together. Control of recorder's down the chain is possible from the master recorder. View of picture from cameras connected to slave recorders can be done from the master recorder monitor.



- Before using the cascade function, check the following:
 - The recorders are connected via the RS-485 terminal. Cascade connection for audio and video is made.
 - The ID number of the master recorder is set to "Master ID : 01" and that of the slave recorders are set to any number from "Slave ID : 01 to 16."

step1. Press the PTZ button for more than 2 seconds.

- The unit switches to the cascade mode.
- On the slave recorder, the status of the cascade mode is shown on the LCD display.

During cascade mode (during connecting):

```
01-01-2004 00:00:00
CASCADE ON
```

During cascade standby mode:

```
01-01-2004 00:00:00
CASCADE MODE
```

step2. Press the camera number button corresponding to the ID number of the slave recorder to be controlled.

- Press the camera number button within 3 seconds of switching the unit to the cascade mode.
- The picture from the selected recorder is displayed on the monitor connected to the VIDEO CASCADE OUT terminal of the master recorder. By using the buttons of the master recorder, the multiplexer function of the slave recorder can be operated. And also by operating PTZ of the master recorder, the camera connected to the slave recorder can be controlled.
- The ID number of the slave recorder controlled appears on the LCD display on the front panel of the master recorder.

```
01-01-2004 00:00:00
CASCADE ID02
```

It is also displayed on the monitor screen.

step3. To control the other recorder, repeat steps 1 and 2 above.

- Press the PTZ button for more than 2 seconds to cancel the operation of the slave recorder and displays the picture supplied from the camera connected to the master recorder again.

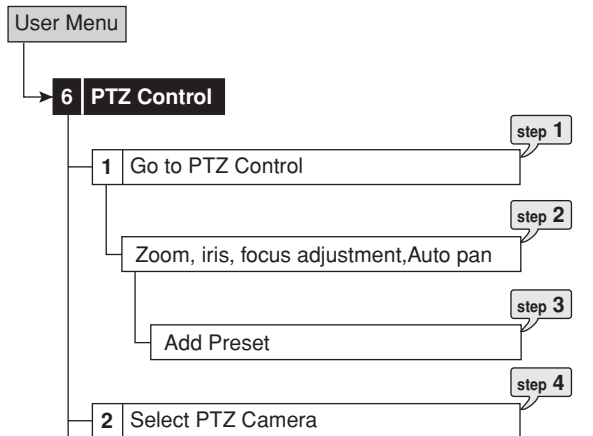


- During cascade mode, the picture from the slave recorder is displayed on the monitor connected to VIDEO CASCADE OUT connector of the master recorder.
- You can operate the multiple recorders also using the optional keyboard DX-KB5UE. For the connection and operation, refer to the installer's manual of this unit or the installation and operation manual of the keyboard.

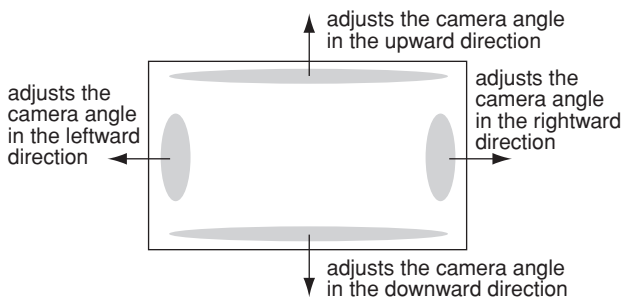
Controlling the camera

This function is used to control the cameras connected via RS-232C or RS-422/485 terminal.

■ PTZ control using the menu (User Menu→PTZ Control)



- step1. Pan or tilt the PTZ camera connected.
- Click the gray area by using the mouse to adjust the camera angle.



- step2. Adjust zoom, iris, and focus. And activate auto pan.
- step3. Preset the watching points 1 to 16.
- The preset points are registered to the PTZ camera for auto pan function.
- step4. Switch the camera number to be controlled.
- The camera number to be controlled appears on the LCD display on the front panel.

01-01-2004 00:00:00
PTZ CAM1



- <PTZ Control> can be set using the mouse only. You cannot set it using front panel buttons.

■ PTZ control using the front panel buttons

- step1. Press the camera number button of the PTZ camera number to be controlled and display the picture in the single screen display.

- step2. Press the PTZ button.
- The unit switches to PTZ mode and the button lights up. "PTZ" appears on the LCD display on the front panel during PTZ mode.

01-01-2004 00:00:00
PTZ

- The camera number to be controlled appears on the LCD display on the front panel.

01-01-2004 00:00:00
PTZ CAM1

- step3. Control the camera.
- Tilt:** Press the TILT ▲ button to tilt the camera in the upward direction. Press the TILT ▼ button to tilt the camera in the downward direction.
- Pan:** Turn the SHUTTLE ring to the right to pan the camera in the rightward direction. Turn the SHUTTLE ring to the left to pan the camera in the leftward direction.

Camera zoom: Press the CAMERA ZOOM button and then turn the JOG dial to the left (wide) or right (tele) to adjust the camera zoom.

Focus: Press the FOCUS button and then turn the JOG dial to the left (far) or right (near) to adjust the focus of a camera.

Iris: Press the IRIS button and then turn the JOG dial to the left (close) or right (open) to adjust the iris of a camera.

Preset: Press the PRESET button and then press the camera number buttons within 3 seconds to preset the watching points. Up to 16 points can be set.

Auto pan: Press the AUTO PAN button to activate the auto pan function of the camera.

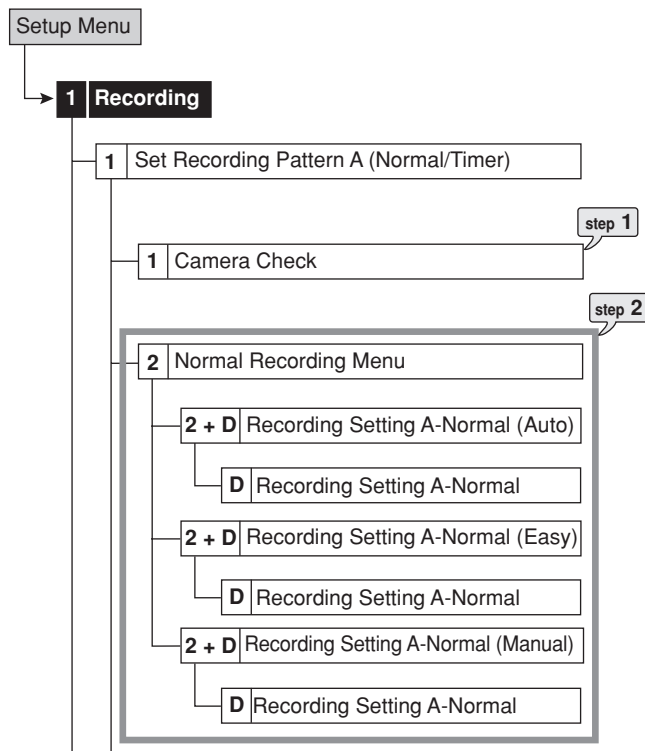
Recording the picture manually

■ Basic manual recording

This function is to setup the recording parameters of recording setting pattern A to start recording manually. Ensure all the cameras are connected and time and date has been set correctly. Before you start recording, check the repeat recording settings in the <Data Management Setting for Main Memory> (System Menu → Memory → Data Management Setting for Main Memory) first, and then make the recording settings.



- Make the manual recording settings on the <Set Recording Pattern A (Normal/Timer)> (Setup Menu → Recording → Set Recording Pattern A (Normal/Timer)).
- <Set Recording Pattern A (Normal/Timer)> can be used for manual or timer recording. <Set Recording Pattern B (Timer)> to <Set Recording Pattern D (Timer)> are used for timer recording only.
- Settings here are for manual recording only. For timer recording, settings must be made on the <Timer> menu (Setup Menu → Timer).



◆ Setting the recording rate and picture grade for normal recording

step1. Execute camera check.

- The unit automatically detects the cameras with video signal at their input when you select "Execute." The detected cameras will be used in the Auto and Easy settings calculation in step 2.



- After executing the camera check, the recording settings are made only for the camera numbers with the video signal input when using auto or easy setting.

step2. Set the normal recording menu.

Auto: Automatically sets the picture grade and the recording rate by setting the recording cycle and the recording hour per day. Set the desired settings and then select "Execute."

- The preview screen appears automatically when the auto setting is executed.

Easy: Sets the frame or field recording, recording rate, and picture grade for normal recording to the same settings for all the cameras. When the recording rate is set to "—" for all the camera numbers, normal recording does not perform. Set the desired settings and then select "Execute."

- The preview screen appears automatically when the easy setting is executed.

Manual: Sets per camera, the frame or field recording, recording rate, and picture grade for normal recording. When you set "—" for the recording rate, the recording does not perform for that camera number.

- Select "View" to display the preview screen and check your settings.



- When you set frame recording, the recording rate display in the preview screen turns green.
- The recording rate display in the preview screen turns red when the value exceeds 240 pps in total.

<Estimated Recording Time>

- The estimated continuous recordable time is displayed on the bottom of the preview screen which is dependent on the picture grade and the recording rate settings for normal recording. (The time does not change or reflect alarm recording settings.)
- When the main device is partitioned, <Estimated Recording Time> shows the estimated recordable time for normal recording.

step3. Press the REC/STOP button.

- The REC/STOP button lights up and recording starts.

step4. To stop recording, press the REC/STOP button for more than 2 seconds.

- Recording stops and the light turns off.



Playing back the recorded data

■ Basic playback

This function is used to playback recorded data. This unit allows recorded data to be played back using various methods. The basic playback described below is the most common method for playback.

- step1.** Press the PLAY button inside of the front door.
- Playback starts.
 - After turning the power on, the oldest recording data is played back first. Otherwise, playback resumes at the stopped position of the previous playback spot.



- When the "Playback Device Repeat Setting" (System Menu→Memory→Recording Data Readout Setting) is set to "Repeat Off," playback stops when reaching the physical end of the HDD or end point of the recording section. When the "Playback Device Repeat Setting" is set to "Repeat On," recorded data is played back repeatedly.

(To change the playback device:)

- step2-1.** Select the playback device and playback area in the <Select Source Device> (User Menu → Search→Select Source Device).

Main: Plays back the contents from the main HDD device.

Normal: Normal recording area

Alarm: Alarm recording area

LPA: Long pre-alarm recording area

Copy 1: Plays back the recorded contents of the copy 1 device.

"SerialBus," "NAS," "SCSI," "DVD/CD,"
"USBMemory"

Copy 2: Plays back the recorded contents of the copy 2 device.

"SerialBus," "NAS," "SCSI," "DVD/CD"



- "Alarm" appears when "Alarm Recording Area" (System Menu→Memory→Data Management Setting for Main Memory→Change Partition Setting) is set to other than "0 %."
- "LPA" appears when "Long Pre-Alarm Area" (System Menu→Memory→Data Management Setting for Main Memory→Change Partition Setting) is set to other than "0 %."

- step2-2.** Press the PLAY button.

- Playback of the selected device starts.



- When you press the PAUSE/JUMP TO END button during the playback is stopped, the still frame playback picture around the end point of the latest recording is displayed.

- step3.** To pause playback, press the PAUSE button.

- To resume playback, press the PAUSE button again or press the PLAY button.

- step4.** To stop playback, press the STOP button.

- When executing playback again, the playback starts from the stopped position of the previous playback.



- Pressing the OUTPUT A/B button on the front panel switches the multiplexer video output. When OUTPUT A is selected, the button light indicator is off. When OUTPUT B is selected, the button light indicator is on, and the buttons related to playback function are operated for the monitor screen connected to the OUTPUT B connector. Pressing the OUTPUT A/B button again switches the multiplexer output to OUTPUT A.
- The playback of each camera may vary in speed depending on the recorded condition.
- During the split screen display, the playback speed may be slower than the speed used for recording.
- When playing back on both OUTPUT A and B, the playback speed may be affected and become slower.

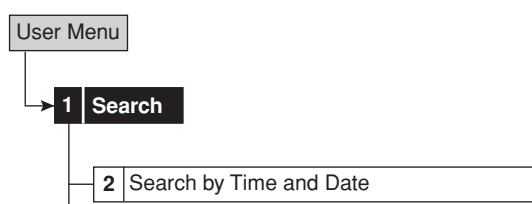
Searching the desired picture

■ Basic search

This function is used to search the start point of needed picture. This unit is equipped with 5 search functions (Search by Time and Date, Search by Alarm List, Find data storage location, Search by Book Mark, and Search by Motion). In this section, the common search methods, search by time and date and search by alarm list, are described.

◆ Search by Time and Date

This item is used to search recording picture by specifying date, hour, minute, second, and camera number. The search result is displayed in still frame playback. When searching for 1 camera number, the search result is displayed in the single screen display. When searching for 2 or more camera numbers, it is displayed in SPLIT16 screen.



- step1. To input the time and date to be searched manually, select "Manual" and then set the month, date, year, hour, minute, and second.
- To input the start and end points of recording, select "Start" and "End" respectively.
- step2. Set the camera numbers to be searched.
- step3. Select "Search."
- step4. To playback the searched picture, press either the PLAY button or the PAUSE button.
- step5. To stop playback or still frame playback, press the STOP button.



- To change the source device to be searched, set the desired device in the <Select Source Device> (User Menu→Search→Select Source Device).
- To display the single screen display of the desired camera number when the search result is displayed in the SPLIT16 screen, press the desired camera number button.

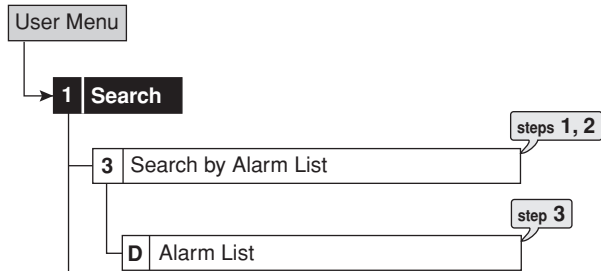


- When there is no recording of the set time, the picture of the closest time and date for the set camera number is displayed in still frame.
- When the multiple recorded data of the same date and time are existed, execute search by time and date more than once until the desired picture is searched.
- Depending on the recording condition, search by time and date function may not operate correctly.

- When you change the display from single to split or from split to single during still frame playback, the recording picture may not be existed at that point or picture may not be displayed depending on the selected camera number or timing of displaying the still frame playback picture.

◆ Search by Alarm List

This unit stores the start time of alarm recording and emergency recording in the alarm list when such recording begins. This item is used to search the desired picture using the list of alarm recording (emergency recording). The search result displays in still frame playback of the single screen display.



step1. Set the month, date, year, hour, minute, second, and sensor number to be searched.

Latest: Displays the date and time of the latest recording.

step2. Select "Alarm List."



- The alarm list may take longer to display completely when there are many items in the list or when a HDD has been added.
- The displayed alarm list shows the list of alarm recordings which has been started before and closest to the specified time.

step3. Select the alarm list you want to display.



- To change the source device to be searched, set the desired device in the <Select Source Device> (User Menu→Search→Select Source Device).

To execute alarm list search while the "Alarm area" and "Long pre-alarm area" are set, set the playback area to "Alarm" and "LPA" respectively.

- "Sensor" display indicates the sensor number of which the alarm signal is input.
- When the repeat recording setting for "Normal Recording Area" or "Alarm Recording Area" (System Menu →Memory→Data Management Setting for Main Memory) is set to "Repeat Off" and there is an alarm recording (emergency recording) at the end of the HDD, that recording may not be stored in the alarm list and that item may be missed.
- When the data of the camera number which is not corresponded to the alarm sensor number is copied to the external media, the alarm list of that data is not exactly similar to that of listed in the digital recorder.



- When the detection of the motion or the ground of the ALARM IN terminal occurs numerous at the same time, not all the start times of the alarm recording may be registered in the alarm list. In this case, the sensor of the lowest number is registered in the list.

- In the alarm list, items with the ALARM IN terminal grounded are indicated in orange, items that were detected with motion are indicated in white, items with the EMERGENCY terminal grounded are indicated in magenta, and items that were input with alarm signal via communication are indicated in green.
- To clear the alarm list, erase the HDD data of which the alarm recording is recorded (System Menu →Data Clear). Beware that executing it erases all the data of the HDD contained the picture data.
- Alarm list search is not performed if there are no index signals.
- When alarm recording (emergency recording) is started while displaying the <Alarm List>, you must first exit the <Alarm List> and then display it again. The new item will be added to the list. In this case, specifying the date and time to be searched again may be necessary.

Copying the recorded data

■ Copy (User Menu→Copy)

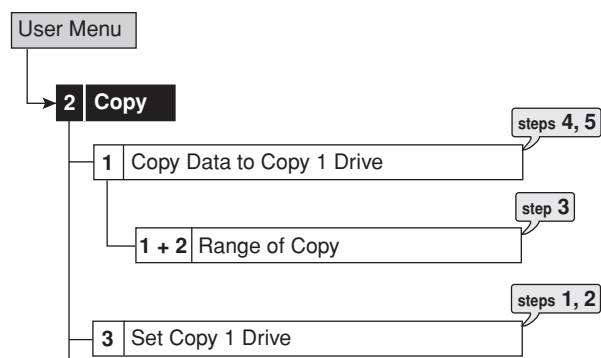
This item is used to copy data from the main device to a copy device.

◆ Copy Data to Copy 1 Drive/Set Copy 1 Drive

This item is used to copy data to Copy 1 device by specifying the start and end points. The points are specified by the date and time or the book mark. This function is useful for copying the data of the short period of time.



- Before executing the copy, make sure that the Copy 1 device is connected and set in the <Add/Remove HDD Device> and <Add/Remove DVD/CD Drive> (System Menu→Memory) correctly.



step1. Set the camera number to be copied.

- The button function changes between “All Off” and “All On” each time you select this button. You can switch on and off for all the cameras easily by using this button.
- The picture is not copied when there is no recorded picture of the set camera number or time.

step2. Select “Other settings” and then set the detailed settings.

From Main: Sets the area which contains the data to be copied. The available setting items are “Normal,” “Alarm,” and “LPA.”

To Copy 1: Sets the group name to where the data is copied. The available setting items are “SerialBus,” “NAS,” “SCSI,” “DVD/CD,” and “USBMemory.”

Copy Data: Sets the data area to be copied. The available setting items are “Alarm” and “All.”

Overwrite: Selects whether or not to overwrite the existed data.

Auto Eject: Selects whether to eject media (CD/DVD) automatically when the copy is over.



- “Alarm” appears for “From Main” when “Alarm Recording Area” (System Menu→Memory→Data Management Setting for Main Memory→Change Partition Setting) is set to other than “0 %.”
- “LPA” appears for “From Main” when “Long Pre-Alarm Area” (System Menu→Memory→Data Management Setting for Main Memory→Change Partition Setting) is set to other than “0 %.”

- When copying the data to DVD and setting “Overwrite” to “On,” the unit clears the existing data on the disk before overwriting with new data. Note that clearing the data takes about 30 to 40 minutes.

step3. Set the start, start/end, or end point of copy by specifying the date and time or the book mark number.

Start: Sets only the start point of copy.

Start/End: Sets the start and end points of copy.

End: Sets only the end point of copy.

- To set the book mark point, select “Bookmark” and then select the desired book mark number.
- To copy from the oldest recording time, select “Copy Start Time.” To copy to the latest recording time, select “Copy End Time.”

step4. Select “Calculate” to calculate the capacity of data to be copied.



- When using “End,” the copy cannot be executed unless the calculation of the capacity of data to be copied is completed.
- When using “Start” or “Start/End” and executing copy without calculating the capacity of data to be copied, the progress or the time of the copy may not be displayed correctly because the unit cannot specify the capacity of data to be copied.

step5. Select “Execute.”

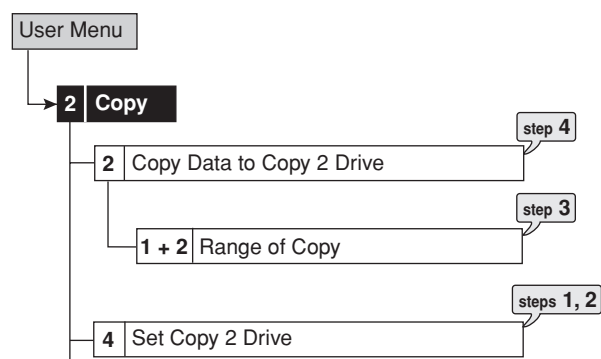
- The copy starts.
- To stop copy manually, select “Cancel” in the progress screen. The data which has been copied before cancelling is copied.

◆ Copy Data to Copy 2 Drive/Set Copy 2 Drive

This item is used to copy the data to Copy 2 device by specifying only the start point. The point is specified by the date and time or the bookmark. The copy continues until the end point of the recording data reaches or the media to be copied becomes full unless the copy is stopped manually (when “FIFO Overwrite” is set to “Off”). This function is useful for making backup of the recording data.



- Before executing the copy, make sure that the Copy 2 device is connected and set in the <Add/Remove HDD Device> and <Add/Remove DVD/CD Drive> (System Menu→Memory) correctly.



- step1.** Set the camera number to be copied.
- The button function changes between “All Off” and “All On” each time you select this button. You can switch on and off for all the cameras easily by using this button.
 - The picture is not copied when there is no recorded picture of the set camera number or time.

- step2.** Select “Other settings” and then set the detailed settings.

From Main: Sets the area which contains the data to be copied. The available setting items are “Normal,” “Alarm,” and “LPA.”

To Copy 2: Sets the group name to where the data is copied. The available setting items are “SerialBus,” “NAS,” “SCSI,” and “DVD/CD.”

Copy Data: Sets the data area to be copied. The available setting items are “Alarm” and “All.”

Overwrite: Selects whether or not to overwrite the existed data.

Auto Eject: Selects whether to eject media (CD/DVD) automatically when the copy is over.

FIFO Overwrite: Selects whether to repeat copying from the start point of the media by overwriting the existed data, or to stop copying when the capacity of the media becomes full during copying. This setting is available only when the copy destination is HDD or NAS.



- “Alarm” appears for “From Main” when “Alarm Recording Area” (System Menu→Memory→Data Management Setting for Main Memory→Change Partition Setting) is set to other than “0 %.”
- “LPA” appears for “From Main” when “Long Pre-Alarm Area” (System Menu→Memory→Data Management Setting for Main Memory→Change Partition Setting) is set to other than “0 %.”
- When copying the data to DVD and setting “Overwrite” to “On,” the unit clears the existed data of the disk before overwriting with new data. Note that clearing the data takes about 30 to 40 minutes.

- step3.** Set the start time of copy.

Start: Sets the start point of copy.

Continue: Starts copying from the end point of the previous copy.

- To set the start point using the book mark, select “Bookmark” and then select the desired book mark number.
- To copy from the oldest recording time, select “Copy Start Time.”

- step4.** Select “Execute.”

- The copy starts.
- To stop copy manually, select “Cancel” in the screen of <Copy Data to Copy 2 Drive>. The data which has been copied before cancelling is copied.



- The warning is displayed when the copied range exceeds the available capacity of the device to be copied when “FIFO Overwrite” is set to “Off” and copy destination is HDD. In this case, set the copy setting again with narrower copy range or use a copy device with larger capacity.

- When the copy is performed during recording, the picture of the recording start and end points may not be recorded.
- When the recording data of the main device which is being copied is overwritten or about to be overwritten, copy is stopped. Be careful for the copy which requires long time such as overwriting copy of DVD.



- The progress bar of copy is not displayed for copy 2.
- The picture data is processed in 2 MB unit. Therefore the data is copied in 2 MB unit from the start point of the designated range when copying.

■ Copying the data of this unit to a video cassette

This function is used to copy the data of this unit to a video cassette using an analogue video cassette recorder. Data can be copied even when the unit is in recording mode. For the recording operation, see the instruction manual for the analogue video cassette recorder used.

- step1.** [Analogue video cassette recorder] Prepare the VCR for recording.

- Set the input source of the VCR to the external input.

- step2.** [This unit] Display the picture in its format (single/split) that you want to record.

- step3.** [This unit] If needed, use the search function to display the start position of copy.

- step4.** [Analogue video cassette recorder] Start recording.

- step5.** [This unit] Press the PLAY button to start playback.

- step6.** To stop copying, press the STOP button on this unit first. And then, stop the recording on the analogue video cassette recorder.



- Only the picture displayed on the monitor screen can be copied to the video cassette.

Copying the recorded data (continued)

■ Playback software

When copying the data to CD/DVD or USB memory, the needed PC playback software is automatically copied on to the disc. Refer to the following for using the software.

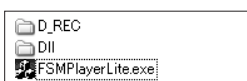
◆ System requirements

- OS: Microsoft Windows 2000 or Windows XP.
- CPU: IBM PC/AT compatible with an Intel Pentium series processor of at least 500 MHz.
- RAM: 256 MB or more.
- Hard disk drive: System drive with unused space of at least 200 MB.
- Display device: XGA (1024 pixels X 768 pixels) or higher.

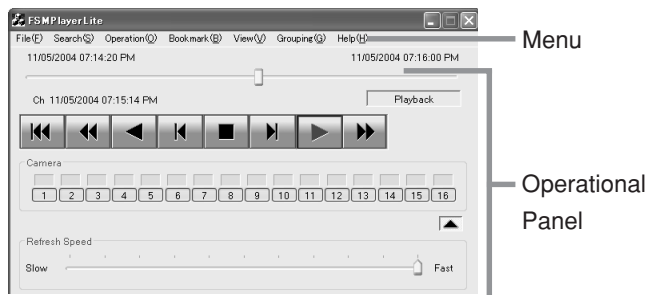
◆ Starting up the application software

step1. Load the CD/DVD/USB memory to the personal computer which has been used for copy.

step2. Double-click the icon of the disc to open.



step3. Start up the application software. Double-click the "FSM Player Lite.exe." The application software starts up and the operation panel appears. When the picture cannot be loaded, use the [Folder] command in the [File] menu to select the picture folder to be played back.



◆ Operational panel

Button	Command	Function
	Rewind	Click to jump to the head of the recording data.
	Reverse Search	Click to playback the picture in the reverse direction with a higher speed than normal playback. The speed changes from X1 to X2, X4, X8 and back to X1 at every press of this button during reverse playback.
	Reverse Playback	Click to playback the picture in the reverse direction.
	Field Reverse	Click to display a still picture one field before.
	Stop	Click to stop playback. Audio, if recorded, will be played back after the stop when the audio command has been enabled.
	Field Advance	Click to display a still picture one field after.

Playback

Click to playback the picture in the forward direction.

Forward Search

Click to playback the picture in the forward direction with a higher speed than normal playback. The speed changes from X1 to X2, X4, X8 and back to X1 at every press of this button during playback.

Camera

(These buttons are displayed when the button located on the lower right of the Forward Search button is pressed.) Click to display the picture of the camera corresponding to the number of the button. The indicator turns green for the camera number which is being displayed, and it turns black for the camera number which is not being displayed. The picture is not displayed even when the indicator turns green if the data has not been copied for that camera number.

Refresh Speed

(This slider is displayed when the button located on the lower right of the Camera button is pressed.) Drag with the mouse to adjust the playback speed. When setting to "Fast," it may disrupt the operation depending on the performance of the personal computer used. Use this setting with the proper picture playback speed suitable to the personal computer used.

The playback speed slider may not be changed at a constant interval when the data which is additionally copied is played back.

◆ File menu

Command	Function
Convert	When clicking during the playback is stopped, [Convert] screen appears. Specify the range to be converted and the camera number, and then press the [JPEG] or [AVI] button to convert and save the picture data collectively. Collective conversion requires adequate free space in the physical memory and the hard disk for temporary files (the system partition and save drive). The limitations of available memory space and hard disk space vary depending on your operating conditions. Perform conversion starting from a small file that requires only several seconds to be converted while checking the state of the memory and the hard disk.

◆ Search menu

<u>Command</u>	<u>Function</u>
Search	When clicking, the [Time Search] screen appears. Specify the date and time to be searched, and then click the [Search] button. The picture of the specified time or around such time appears. The search may not be performed when the date and time information of the recorded contents is not chronological such as the data which is added to the existing data.

◆ Operation menu

<u>Command</u>	<u>Function</u>
----------------	-----------------

For Playback, Stop, Reverse Playback, Forward Search, Reverse Search, Field Advance, Field Reverse, or Rewind, refer to the section of the "Operation panel."

Audio	Select among channel 1 to 4 and put a check mark to output audio while a medium containing recorded audio is played back. When playback of such medium with audio is stopped, the audio both prior to and subsequent to the frame at the stop position of playback can be monitored. The audio is played back for about 10 seconds. (The playback time may vary depending on the recording condition.)
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◆ Bookmark menu

<u>Command</u>	<u>Function</u>
A-, B-	Click to register the current playback position as Point A or Point B to repeat playback between those positions.
Repeat between A and B	Put a check mark to repeat playback between Point A and Point B you specified.

◆ View menu

<u>Command</u>	<u>Function</u>
Picture Size	When clicking, the options of [100%], [75%], [50%], and [25%] appear. Pictures are zoomed in or out according to the selected magnification.
Decode Level	When clicking, the options of [Fine], [Middle], and [Rough] appear. When setting the decode level to rough, the picture becomes rough and the playback update speed becomes faster.
Title Bar	When clicking, the options of [Date Time], [Alarm], and [Title] appear. Put a check mark to the item to be displayed on the screen.

◆ Grouping menu

<u>Command</u>	<u>Function</u>
Grouping Pattern	When clicking, the [Grouping Pattern] screen appears. When you click the [4 Multi], [6 Multi], [9 Multi], [10 Multi], [13 Multi], or [16 Multi], the split screen of the selected pattern appears. Click "Setting" to display the setting screen to set the position of the camera to be displayed in each screen.

◆ Menus appearing with right button clicking



- To use the following functions, click the right button of the mouse on the screen to be operated. The following functions are performed only for the clicked screen.

During playback

<u>Command</u>	<u>Function</u>
Picture Size	Refer to the section of the "View menu."
Decode Level	Refer to the section of the "View menu."

During stopping playback

<u>Command</u>	<u>Function</u>
Copy	Click to copy the picture being displayed onto the clipboard.
Save As	When clicking, the [Save As] screen appears. You can save the picture being displayed as either a Windows bitmap file (.bmp) or a JPEG file (.jpg).
Picture Size	Refer to the section of the "View menu."
Decode Level	Refer to the section of the "View menu."
Print	When clicking, the [Print] screen appears. After setting the [Margins], [Printer Settings...] and other options, click [Print] button to print the picture being displayed.

Communications by Web Browser

■ Communications by Web Browser

The Web browser on the personal computer can capture the pictures that have been recorded and live pictures from the camera that is connected to this recorder. Also, some of the recorder settings can be made via the personal computer.

◆ The personal computer product requirements

- OS: Microsoft Windows 98SE, Windows 2000, Windows Me or Windows XP.
- CPU: IBM PC/AT compatible with an Intel Pentium series processor of at least 500 MHz.
- RAM: 256 MB or more.
- Hard disk drive: System drive with unused space of at least 200 MB.
- Web Browser Soft: Microsoft Internet Explorer 5.5 or later.
- Display device: XGA (1024 pixels x 768 pixels) or higher.



- Microsoft and Windows are registered trademarks of the Microsoft Corporation in the US and other regions. (The official name of Windows is Microsoft Windows Operating System.)

All other company and product names appearing herein are the property of their respective owners.

- Windows 98SE is an abbreviation of Microsoft Windows 98 Second Edition.
- Windows 2000 is an abbreviation of Microsoft Windows 2000 Professional.
- Windows Me is an abbreviation of Microsoft Windows Millennium Edition.
- Windows XP is an abbreviation of Microsoft Windows XP Home Edition/Professional.



- The product requirement described above cannot guarantee operations in all environments.
- Lack of compatibility between Web functions and the PC peripheral driver may, in rare instances, result in abnormal operation. If this happens, upgrade to the newest version of Internet Explorer and try again.

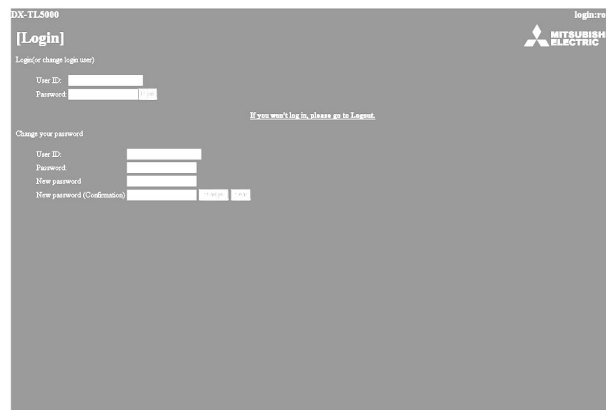
◆ Connections

- When making a direct connection between this unit and a personal computer (hereinafter PC), use a cross cable, and when making a connection through a HUB, use a straight cable.
- Refer to the PC instruction manual for instructions on how to set the Web settings on the PC.

■ Login

Start up the Microsoft Internet Explorer and log in.

1. Start up the Microsoft Internet Explorer and enter the address.
 - The "[Login]" screen appears.



2-1. (When logging in • • •)

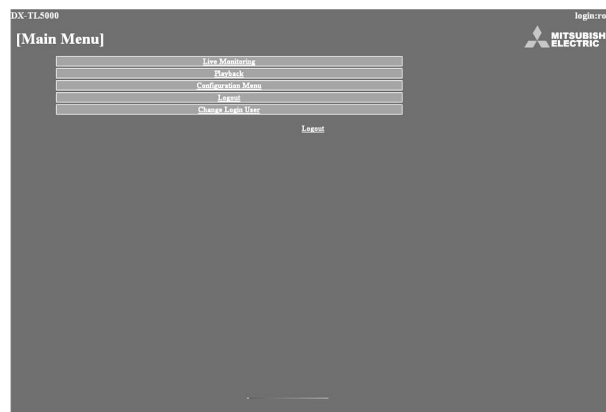
First, enter the "User ID" and the "Password." When shipped from the factory, the user ID for the full-rights user is "**root**," and the password is "**admin000**," the user ID for the live user is "**guest**" and the password is "**guest**."



- More than one user can log in simultaneously using the same user ID and password.
- However, there are restrictions depending on authorization. The maximum number of users that can be connected at the same time is 10.

2-2. Select "login" and then left-click or press ENTER.

- The "[Main Menu]" screen appears.



- 3-1. (If you make an error in entering the user ID or password •••)
 - The "[Caution]" screen appears.
- 3-2. Select "Login" and either left-click or press ENTER.
 - The "[Login]" screen appears.
- 3-3. Follow the steps in step 2-1 and enter the correct "User ID" and "Password."

- 4-1. (If you do not log in •••)

Select "If you won't log in, please go to Logout." and left-click.

- 4-2. The message "Session ID removed from recorder & browser. Please close the browser." will be displayed. Close the Web Browser at this point.

- 5-1. (To change password •••)

The password can be changed in the "[Login]" screen only by the user who has the authorization to change a password. Follow the instructions in the menu and enter the current "User ID" and "Password."

- 5-2. Enter the new password in "New password" and again in "New password (Confirmation)."



- The number of characters that can be used in registering a password is 16. Both alphabet letters and numbers can be used with a distinction made between upper and lower case. You cannot use spaces.
- 5-3. To change to a new password, select "change" and left-click or press ENTER. To cancel the change, select "clear" and left-click or press ENTER.

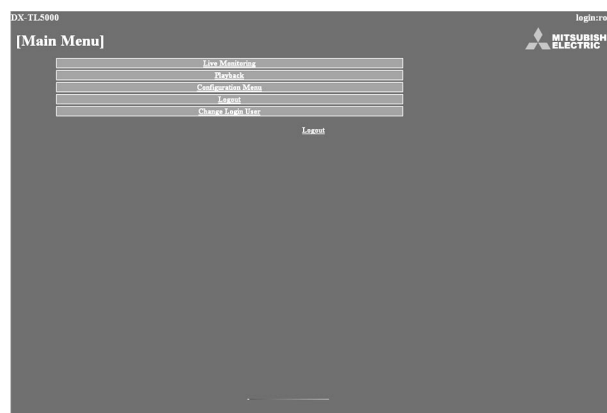
■ Main Menu

This is the screen for selecting, from "Main menu," "Live Monitoring" with which live pictures will be retrieved and displayed, "Playback" with which pictures that have already been recorded will be retrieved and displayed, "Configuration Menu" which allows changes to the settings of the recorder, "Logout" for ending a job, or "Change Login User" for making a change in the logged-in user.



- Depending on the user's authorization, there are certain menus that cannot be selected.
- The transfer rate at communication changes depending on the communication environment or unit's status. For stable communication, use this unit with the proper picture transfer speed suitable to the conditions of the communication line.
- The user's session ID (connection data) will be lost in 5 minutes from the final operation that includes picture retrievals. If no operations are made within that 5 minutes, no other operations can be made after that so close the browser and then log in again.
- If the unit's MAIN switch is "OFF," live and recorded pictures cannot be retrieved.

1. Select the desired menu from "Main Menu" and left-click.



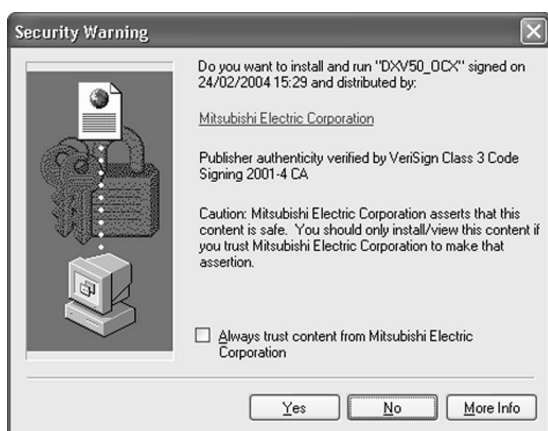
◆ Live Monitoring

Retrieves live pictures and displays the pictures on the PC screen.

1. Select "Live Monitoring" and left-click.
 - The "[Live]" screen appears.



- When picture acquisition is tried for the first time with the Web browser of a personal computer, a message as shown below will be displayed. Please click "Yes."



- When the unit is recording at the full rate (240 pps), the picture supplied from the camera which is not used for recording at that time is not updated.



<Function description>

STOP	: Stops the retrieval of an picture.
GO	: Starts (or restarts) the retrieval of an picture.
Display	: For selecting either the display or non-display of a camera number.
Layout	: For selecting from the 12 types of display patterns. (default: 4(1-4) screen)
Camera	: Selects the camera number that you want to display and check.
Transfer Rate	: Selects one of 5 stages from "Lo" to "Hi" for picture retrieval speed. (default: middle)
Save Layout	: The layout of the screen display is registered to "Local PC."
Main Menu	: Returns to the "Main Menu."
Logout	: For logging out.

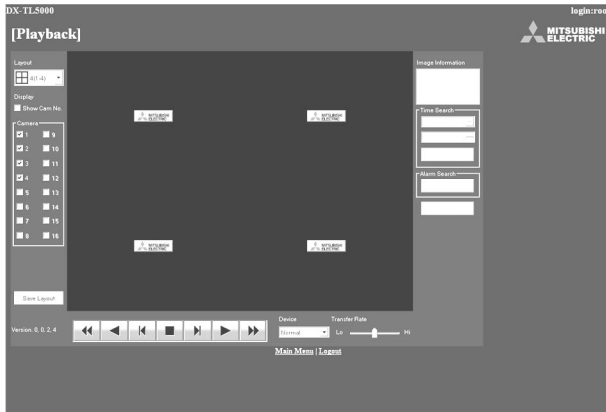


- The sequence in which camera numbers have been selected is displayed from the top left.
- Setting "Transfer Rate" too far on "Hi" may present a problem to the PC operations. This could be due to the PC's hardware/software performance you are using. Please adjust the image transfer rate that best meets your machine.
- Depending on the network capacity and the load conditions, the transfer rate may be affected.

◆ Playback

Retrieves, plays back and searches for pictures that have been recorded by the recorder.

1. Select "Playback" and left-click.
 - The "[Playback]" screen appears.



2. Press the ► button to start playback.

<Function description>

- : Press to start playback.
- : Press to start speed search in the forward direction at speeds of x2, x4, x8 and x16.
- | : Press to frame-by-frame playback in the forward direction.
- ◄ : Press to start reverse playback.
- ◄◄ : Press to start speed searches in the reverse direction at speeds of x2, x4, x8 and x16.
- ◄| : Press to frame-by-frame playback in the reverse direction.
- : During playback or searching, press to stop playback for still frame.

Device : Selects the HDD for playback and search.
(default: Normal)



- The date, time, and the camera number for the picture acquired are displayed in "Image Information." Clicking "Save Image" stores the picture that is freeze-frame displayed in the PC in bit map format.
- The following searches can be selected in single-screen display.



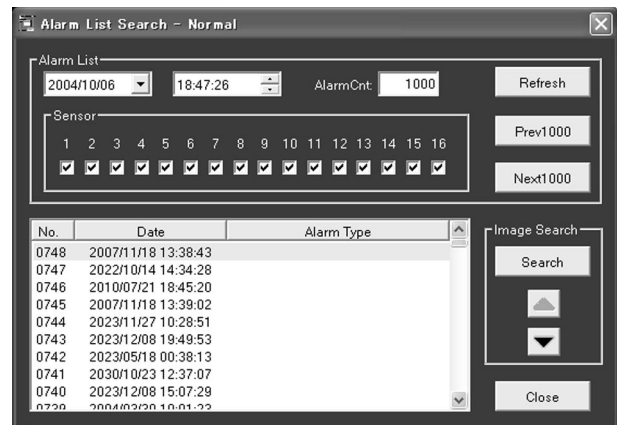
- The function of searching for recorded picture data is effective only when the single-screen display has been selected in the "Playback" menu. The function cannot operate during picture data playback so to make a search of any type first stop the playback.

• Time Search

Select the date and time and click "Search."

• Alarm List Search

Click "Alarm List" and the "Alarm List Search" screen will appear in the sub-screen.



1. Set the desired date/time and number of alarm list items to be acquired, and then click "Refresh" to acquire the alarm list.
 - The alarm list cannot be acquired without clicking "Refresh."
 - Enter the needed number of alarm list items to be acquired in "Alarm Cnt." If number entered is too large, it may take a long time to acquire the list or the desired number of list items may not be acquired depending on the recording condition.
2. Select the "No." desired, and then click "Search."
 - Click "Prev(number)" for a search in the reverse direction and click "Next(number)" for a search in the forward direction.

Click "Refresh" again to re-acquire the "Alarm List," and click "Close" to hide the "Alarm List Search" menu.

Sensor : Check the desired sensor number to acquire the alarm list items.

• Image Search

Click ▲ to display the picture of the next alarm list item.

Click ▼ to display the picture of the previous alarm list item.

◆ Configuration Menu

This is the screen for making some of the recorder settings.

1. Select “Configuration Menu” in the “Main Menu” screen.
 - The “[Configuration Menu]” screen appears.



2. Select the desired “Configuration Menu” and left-click.

• User Registration

This is the screen for changing the settings for registered user authorization, and for deleting a registration. It can also be used for registering new users.

1. Select “User Registration” and left-click.
 - The “[User Registration]” screen appears.



- 2-1. (To change registered user settings • • •)

Select the user ID for changing the settings in the “Change authorities of users” settings.

- Select the items that you want to change.

<Authority>

- Live Monitoring** : Allows viewing of live pictures. It is a mandatory rank to be registered.
- Playback** : Allows viewing of recorded pictures.
- All Cameras** : Allows viewing of pictures from all the cameras. (The picture of the cameras set to “Off” in the covert camera setting can be displayed.)
- Change Passwords** : Allows changing of user’s password.
- Configuration** : Allows viewing and editing of user registration information.



- Certain items cannot be selected depending on what the user authorization is.
- “Configuration” authorization can be used by only one user. From the time that a user logs in until that user logs out and gives up authorization, any other user that logs in is regarded as a user who does not have “Configuration” authority.
- “Playback” authorization can only be used by one user. From the time that a user logs in until that user logs out and gives up authorization, any other user that logs in is regarded as a user who does not have “Playback” authority.

- 2-2. (To change settings • • •)

Select “change” and left-click. The “[Change Confirmation]” screen will appear.

- 2-3. If you want to make the change, left-click “change.” If you want to cancel a change, left-click “cancel.”

- 2-4. (When you have selected “change” • • •)

The “[Completed]” screen will appear, so then left-click “User Registration.”

- The “[User Registration]” screen reappears.

- 2-5. (When you have selected “cancel” • • •)

- The “[User Registration]” screen reappears.

- 3-1. (To delete a registered user • • •)

Left-click on “remove” in the user ID that you want to delete in “Change authorities of users.”

- The “[Remove Confirmation]” screen appears.

- 3-2. If you want to delete it, left-click “remove.” If you don’t want to delete it, left-click “cancel.”

- 3-3. (If you have selected “remove” • • •)

The “[Completed]” screen will appear, so left-click “User Registration.”

- The “[User Registration]” screen reappears.

- 3-4. (If you have selected “cancel” • • •)

- The “[User Registration]” screen reappears.

- 4-1. (To register a new user • • •)

Enter the new user ID and new password in “Add New User.”

- 4-2. Refer to step 2-1, select the “Authority” desired and put a check mark.



- A user ID with the same name cannot be registered. The maximum number of characters that can be used in registering a password is 16. Both alphabet letters and numbers can be used with a distinction made between upper and lower case. You cannot use spaces.

4-3. If you want to make a new registration, left-click “register.” If you want to cancel a new registration, left-click “clear.”

4-4. (If you have selected “register” • • •)

It will be added to “Change authorities of users.”

4-5. (If you have selected “clear” • • •)

Clears the specified contents.

5-1. (To change the access method settings • • •)

Select the item to be changed in the “Access Mode Setup.”

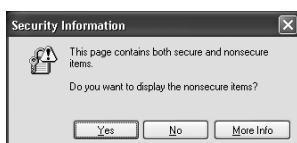
- Use SSL for Web Access:
Sets the level of the encoding function (SSL).
“No SSL”: Does not use the encoding function.
“Menus only”: Uses the encoding function for the menus only.
“Menus + Pictures”: Uses the encoding function for the menus and pictures.
- SSL Port Settings:
Sets the port number used for SSL communication.
- Band-Width Limit:
Controls the band width of the communication. The available setting items are “No Limit,” “30Mbps,” “20Mbps,” “10Mbps,” “7.5Mbps,” “5Mbps,” “3Mbps,” “2Mbps,” “1Mbps,” “750kbps,” “500kbps,” “300kbps,” “200kbps,” “100kbps.”



- When you use SSL, the following message appears. Select “Yes” and then continue the operation.



- Even if the “Use SSL for Web Access” is set to “Menus + Pictures,” the following message may appear when displaying live or playback picture. It appears because the communication without encoding is used to download the ActiveX Control for displaying the picture.



This message appears every time live or playback picture is displayed. Select “Yes” when displaying the live or playback picture.

In this case, the key-shaped icon which shows the encode communication of the browser is not displayed, however, communications of both of the menu and picture are carried out with encoded.

5-2. Set the desired setting in “New Settings” and then select “change” and left-click.

• Recorder Title & Camera Titles

This is the screen for setting or changing the recorder and the camera titles.

1. Select “Recorder Title & Camera Titles” and left-click.
 - The “[Recorder Title & Camera Titles]” screen appears.



2. Enter the desired recorder or camera title to “New Text.”
 - The recorder and the camera titles currently set are shown in the “Current Text.”
3. Select “change” and left-click.

• E-mail Setup

This is the screen for setting the information related to the e-mail server or sender, and for setting the e-mail address of the receiver.

1. Select “E-mail Setup” and left-click.
 - The “[E-mail Setup]” screen appears.



2. (When making the settings to send the e-mail • • •)

Input the desired settings for “SMTP Server (Host Name or IP),” “POP Server (Host Name or IP),” “POP User ID,” “POP User Password,” “DNS Server 1 Address,” “DNS Server 2 Address,” “From:,” and “Recorder ID.”

- The settings currently set are shown in the “Current Settings.”

3. To send the test e-mail, select “From Address Test (send test mail)” and left-click.

4-1. (When setting the receiver’s address • • •)

Enter the desired e-mail address to “New Address.”

4-2. Set the contents to be transmitted from the recorder to the PC.

- “Remain,” “Temp/Fan,” “Reboot,” “Record,” “Alarm,” and “Sensor” settings can be set.

4-3. Select whether to activate or inactivate the e-mail address you have set.

- When a check mark is put to “Active” column, the selected email address becomes active.

4-4. Select “set” and left-click.

4-5. Select “send” to send the test e-mail.

• NAS Setup

This is the screen for making the settings to connect to the NAS server, and for mounting or removing the NAS server.

1. Select “NAS Setup” and left-click.
 - The “[NAS Setup]” screen appears.



2. Input the desired settings for “IP Address” and “Directory.”

3. Select “set” and left-click.

4. (When removing the NAS server • • •)

Select “remove” and left-click.

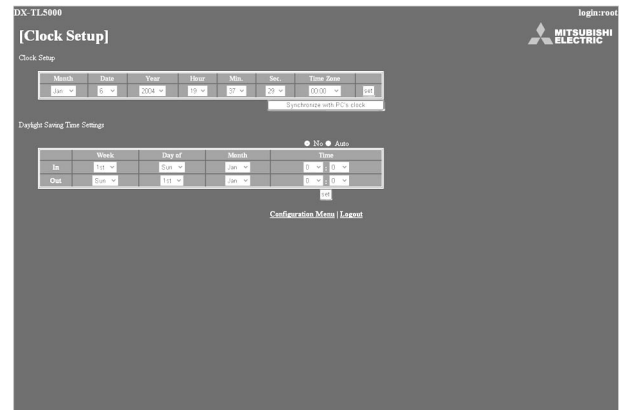
5. (When execute the mount test • • •)

Select “test” and left-click.

• Clock Setup

This is the screen for setting the clock of the recorder via PC.

1. Select “Clock Setup” and left-click.
 - The “[Clock Setup]” screen appears.



2-1. (When setting the clock using “Clock Setup” • • •)

Set “Month,” “Date,” “Year,” “Hour,” “Min.,” “Sec.,” “Time Zone” to the desired time.

2-2. Select “set” and left-click.

3. (When setting the clock using “Synchronize with PC’s clock” • • •)

When you want the clock of the recorder to be synchronized with the PC clock, select “Synchronize with PC’s clock” and left-click.

- The clock of the recorder is set to the same time as the PC clock.
- When using this function on the timing that the year, month, day, hour, or minute is changed, check the clock after synchronizing with the PC clock.

4. (When setting the daylight saving time function • • •)

Select “No” when you do not want to use the daylight saving time function.

Select “Auto” to use the daylight saving function.

- When selecting “Auto,” set the desired time period for activating the daylight saving time function and then select “set.”

◆ Logout

In this screen, assign “Logout” settings to end the job.

1. Select “Logout” and left-click.
 - The “[Logout]” screen appears.



2. Close the Web Browser.

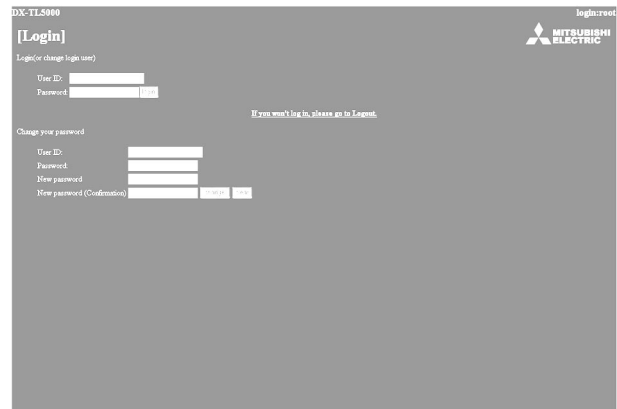


- If the browser is closed incorrectly (not logging out correctly), the user's session ID will be saved for 5 minutes. If the Log in is made with the same user ID within that 5 minutes, operation limits may take effect.

◆ Change Login User

This screen is for changing the logged in user.

1. Select “Change Login User” and left-click.
 - The “[Login]” screen appears.



- 2-1. (To change the logged in user • • •)

In the “Login (or change login user)” settings, execute step 2-1 and 2-2 in “■ Login” and change the logged in user.

- The logged in user is changed and the “Main Menu” screen appears.

- 2-2. (To log in without changing the user • • •)

Select “Return” button on the browser and left-click.

- 2-3. (To log out • • •)

Select “If you won't log in, please go to Logout.” and left-click.

Troubleshooting

If problems with the unit persist even after you've followed the suggestions below, please disconnect the power cord and contact the retailer from whom you purchased the unit.

	Description of problem	Please consult the following
INSTALLATION	The unit does not be turned on.	<ul style="list-style-type: none"> • Is the power cord properly plugged in? • Is the LOCK indicator light on? • Is the TIMER indicator light on? • Is the MAIN switch on the rear of the unit set to "OFF" ?
	Power is on, but the unit does not operate.	<ul style="list-style-type: none"> • Is the LOCK indicator light on? • Is the POWER indicator flashing? (The unit cannot be operated while the POWER indicator is flashing.) • The safety features may be in operation. Reset the unit by pressing the RESET button on the rear panel using a ballpoint pen or similar object, and then turn the power on again.
	Pictures are not appearing on the monitor.	<ul style="list-style-type: none"> • Are the monitor and camera(s) connected correctly? • Is the unit receiving an input signal from the selected camera? Check this by displaying the SPLIT16 screen.
	The quality of the monitor picture is poor.	<ul style="list-style-type: none"> • Is the connecting cord connected correctly? • Is the camera's focus adjusted correctly?
RECORDING	The unit does not start recording.	<ul style="list-style-type: none"> • Is the repeat recording setting for "Normal Recording Area," "Alarm Recording Area," or "LPA Recording Area" (System Menu → Memory → Data Management Setting for Main Memory) set to "Repeat Off" ? • The recording starts after the time set for recording rate is passed. Was the unit stopped during that time?
	The unit does not stop recording.	<ul style="list-style-type: none"> • Is the LOCK indicator light on? • During normal recording, alarm recording, and emergency recording, press the REC/STOP button for more than 2 seconds. • Is timer recording in progress? To stop timer recording, press the TIMER button for more than 2 seconds.
	The unit does not repeat the recording.	<ul style="list-style-type: none"> • Is the repeat recording setting for "Normal Recording Area," "Alarm Recording Area," or "LPA Recording Area" (System Menu → Memory → Data Management Setting for Main Memory) set to "Repeat On" ?
	The unit does not perform timer recording.	<ul style="list-style-type: none"> • Are the date and current time set accurately? • Are the recording start-/end-times and the recording rate set correctly? • Is the repeat recording setting for "Normal Recording Area," "Alarm Recording Area," or "LPA Recording Area" (System Menu → Memory → Data Management Setting for Main Memory) set to "Repeat Off" ?
	The unit does not perform alarm recording.	<ul style="list-style-type: none"> • Is the recording rate for alarm recording set to "— —"? • Is the recordable capacity for alarm recording area full? • Is the unit in timer recording stand-by mode? (Is the TIMER indicator light on?) • Are the peripheral switches, etc., connected correctly?

	Description of problem	Please consult the following
PLAYBACK	The unit does not perform playback.	<ul style="list-style-type: none"> • Is the LOCK indicator light on? • Has the data been erased? • Is the correct playback device selected?
PERIPHERAL RECORDING DEVICE	The copy device does not respond.	<ul style="list-style-type: none"> • Has the recording medium been inserted correctly into the unit? • Is the unit currently in the middle of loading the recording medium? • Is the correct playback device selected? • Has the recording medium's write-protect been removed? • Is the power supply of peripheral recording device set ON? • Is the termination set correctly? (SCSI device only.) • Is the copy device registered in the <Add/Remove HDD Device> and <Add/Remove DVD/CD Drive> (System Menu→Memory)?
OTHERS	The camera cannot be controlled via this unit.	<ul style="list-style-type: none"> • Is the camera to be controlled connected correctly? • Is the <PTZ Setting> menu set correctly?
	The unit does not perform the motion detection function.	<ul style="list-style-type: none"> • Is trigger for alarm recording of the camera number for which the motion detection function to be executed set to "External" ? • Is the alarm recording rate of the camera number for which the motion detection function is executed set to "— —"? • Is the value set in "Motion Threshold" of the <Motion Det> menu larger than that of "Motion Mask Settings" ? • Is the detection area set correctly?
	The unit cannot be controlled via the personal computer.	<ul style="list-style-type: none"> • Is the <COM/LAN> menu set correctly ? • Are the unit and the personal computer connected correctly ? • Is there a defect in the connecting cable ? • Is the proper connecting cable being used ?
	There is a camera number with a blue screen during split screen display.	<ul style="list-style-type: none"> • The screen of camera number with no video signal input appears blue even when setting for operation.
	Button operation is not working.	<ul style="list-style-type: none"> • Is the POWER indicator flashing? (The unit cannot be operated when the POWER indicator is flashing.) • Is the LOCK indicator light on?
	Cameras cannot be switched with the camera number buttons.	<ul style="list-style-type: none"> • Is the menu screen being displayed? Camera number buttons cannot be used when the menu screen is displayed.
	Menus cannot be set.	<ul style="list-style-type: none"> • When OUTPUT B is selected, the cursor of the mouse is displayed, however, the menu screen is not displayed and cannot be set. The menus can be set only when the OUTPUT A is selected.

Warnings and CALL OUT output

■ Warnings and their appropriate countermeasures

#1 Options in the CALL OUT output column:

- Selectable: Selects to output CALL OUT signal or not on the menu screen.
- Fixed: Outputs CALL OUT signal from the CALL OUT terminal regardless of the menu setting.
- None: Does not output CALL OUT signal, but displays a warning on the screen.



- The warning display appears when the HELP button is pressed during "ALERT" is displayed on the screen. The contents of last 16 warnings are stored and can be displayed. The contents older than those are cleared and output of CALL OUT is cancelled. CALL OUT signal output can be stopped by pressing the E button or clicking "Clear Warning" while displaying the warning display.

Warning Display	Countermeasure	Cancelling the warning	Log number	CALL OUT output #1
The remaining capacity of Normal Area in Main device has become less than **%.#2	• Copy data as necessary.	Click "Clear Warning" or press the E button.	LOG1200	Selectable
The remaining capacity of Alarm Area in Main device has become less than **%.#2			LOG1201	
The remaining capacity of LPA Area in Main device has become less than **%.#2			LOG1202	
The remaining capacity of Copy 2 disk has become less than **%.#2			LOG7200	
The remaining capacity of Normal Area in Main device has become 0%.	• When the warning is cancelled, the unit will start over-writing the oldest data remaining in the hard disk drive. • Copy data as necessary.	Click "Clear Warning" or press the E button.	LOG1100#3	Selectable
The remaining capacity of Alarm Area in Main device has become 0%.			LOG4100#4	None
The remaining capacity of LPA Area in Main device has become 0%.			LOG1101#3	Selectable
			LOG4101#4	None
The remaining capacity of disc in Copy 1 drive has become 0%.	• Replace media if necessary.	Click "Clear Warning" or press the E button.	LOG3100	None
The remaining capacity of disc in Copy 2 drive has become 0%.			LOG7100	Selectable
Copy data size error.	• Set the copy/restore range again. • Replace with new media.	Click "Clear Warning" or press the E button.	LOG3701#5	None
Check the range of copy data or the disk space of copy media.			LOG7701#6	
Copy media error.	• Check media in recording device. (Insert the media if there is none.) • Check whether it is write-protect by media. Cancel protection if it is protected. • After peripheral recording device and the unit power off a power supply, reboot in order of peripheral recording device and the unit. • After peripheral recording device and the unit power off a power supply, check a cable and termination (for SCSI device only).	Click "Clear Warning" or press the E button.	LOG4701#4	None
Cannot copy the data.			LOG3702#5	
Check the copy device.			LOG7702#6	
			LOG4702#4	
No disk.	• Insert the disc.	Click "Clear Warning" or press the E button.	LOG3703#5	None
The drive has no disk or wrong type of disk. Put a proper disk into the drive.			LOG7703#6	
The remaining capacity of disc in Copy 1 drive has become 0%.	• Replace the disc.	Click "Clear Warning" or press the E button.	LOG4703#4	None
Put a new disc into the drive.			LOG3704#5	
The remaining capacity of disc in Copy 2 drive has become 0%.			LOG7704#6	None
Put a new disc into the drive.				

#2 : The value depends on the setting.

#3 : Log number for Recording

#4 : Log number for Restore

#5 : Log number for COPY 1

#6 : Log number for COPY 2

#7 : (The following numbers are in □□)

01 : CH 1 02 : CH 2 03 : CH 3 04 : CH 4 05 : CH 5 06 : CH 6

07 : CH 7 08 : CH 8 09 : CH 9 10 : CH 10 11 : CH 11 12 : CH 12

13 : CH 13 14 : CH 14 15 : CH 15 16 : CH 16

Warning Display	Countermeasure	Cancelling the warning	Log number	CALL OUT output #1
No Camera Signal Camera signal is lost or distorted. Please check the camera and cable connection.	<ul style="list-style-type: none"> • Check whether the unit and camera are properly connected, and that electricity is on. • Check whether the video signal is being properly outputted. • Check to see if there is a camera set for operation with no video signal input. 	Stop recording. Output video signals. Click "Clear Warning" or press the E button.	LOG54□□#7	Fixed
It can use as it is though a slight error occurred.	<ul style="list-style-type: none"> • Continue the operation when there is no abnormality. • When the error occurs continuously, check the HDD/media, cable and termination and restart the unit. 	—	LOG13□□#8 LOG23□□#8 LOG33□□#8 LOG43□□#8 LOG73□□#8	None
System suspended due to unstable processing. Recording will be resumed. HDD * * * was disconnected.	• Restart the unit.	Click "Clear Warning" or press the E button.	LOG14□□#8	Fixed
System suspended due to unstable processing. Start operation again.			LOG24□□#8 LOG34□□#8 LOG44□□#8 LOG74□□#8	None
The alteration part is found in the data.	—	Click "Clear Warning" or press the E button.	LOG55□□#7	None
Recorder detected technical problems on the device.	—	Click "Clear Warning" or press the E button.	LOG6200	Fixed
The recorder has been rebooted. The problem is not critical, but check the recorder.	• Check the unit.	Click "Clear Warning" or press the E button.	LOG5100	Fixed
Internal temperature is getting too high, check the ventilation of the recorder.	• Turn off the power and change the installation condition.	Click "Clear Warning" or press the E button.	LOG5200	Fixed
Internal temperature is getting too high, stop the operation of the recorder immediately.	• Turn off the power and change the installation condition.	Click "Clear Warning" or press the E button. Lower the temperature.	LOG5201	Fixed
The fan of the recorder needs to be checked.	• Turn off the power and stop using.	Click "Clear Warning" or press the E button. Rotate the fan.	LOG5300	Fixed
Copying data stopped because of new record overwrites the old data.	• Stop HDD recording to continue copy/archive.	Click "Clear Warning" or press the E button.	LOG3500#3 LOG7500#4	None
New record will soon overwrite the old data in copying. Stop the recording, if you want to continue the copying.	<ul style="list-style-type: none"> • Stop HDD recording to continue copy/archive. • Stop copy/archive to continue HDD recording. 	Click "Clear Warning" or press the E button.	LOG3600#3 LOG7600#4	None
(none)	• Restarts by watchdog operation.	—	LOG5101	—

#8 : 14 □□ : Recording 24 □□ : Playback
 34 □□ : Copy 1 44 □□ : Restore 74 □□ : Copy 2
 (The following numbers are in □□)
 00 : A (Internal) 01 : B (Internal) 02 : C (Internal)
 03 : D (Internal) 10 to 26 : USB (External)
 30 to 35 : SCSI (External) 40 to 47 : NAS (External)

Regarding LOG1400: Displays during recording. The system shuts down once and then resumes recording. (The error HDD is automatically deleted from the registration for the recording device. The recording is continued until all the registered HDDs are used up.)

Regarding LOG24 to 74: Displays during copying or playback. The playback or copy stops because the system shuts down. Carry out playback or copy again.

..... Warnings and CALL OUT output

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